

THE macdonald JOURNAL

DECEMBER 1977

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THE macdonald Journal

DECEMBER 1977

Volume 38, No. 12
December, 1977

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The Macdonald Journal is published every month by Macdonald College.

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Subscription rates are \$3.00 for one year, \$5.00 for two years, and \$7.00 for three years in Canada. Outside Canada — \$7.00 for two years.

Printed by Harpell's Press Co-operative, Gardenvale, Quebec.

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Journal Jottings

Along with the practical — the ties, the work socks, or mixing bowls — that is a part of Christmas giving, it is always a pleasure to include something a bit frivolous, a bottle of cologne some after-shave, a trinket, or a book by a favourite author. And so it is that our package of December reading is a combination of the practical and, though certainly not frivolous, then the lighter, general interest type of reading.

"Does Subsurface Drainage Pay?" and, on the subject of corn, "Seeding: A Fundamental Step" are our practical gifts filled with solid, sound information that should be of interest now and of use in the months to come. The lighter reading concerns two trips. One by two professors and

a group of students who took a bus trip through parts of Ontario, the States, and western Canada. This important aspect of a student's education, because College is not all lectures and labs, is something I have wanted to share with our readers for some time. This article is one such learning experience; I hope we may be able to report others in the future. The other trip was made by Jim Houston, Assistant Director of the College Farm and Secretary-Treasurer of the Quebec Aberdeen Angus Association, to attend the World Angus Forum in Scotland. Beef farmers, Angus in particular, as well as those people with Scottish ties will enjoy Jim's account of his overseas visit.

On these particular pages and elsewhere in the magazine I hope you will find your own special piece of Christmas reading. Once

again I would like to thank all those who have contributed to our pages during the past year, and I would also like to thank our growing family of readers for their continued interest and support. To one and all a Happy Christmas and all the best, both practical and frivolous, for '78.

Hazel M. Clarke

The Quebec Farmers' Association held its annual meeting on November 2 on the Campus of Macdonald College. For those who may not be familiar with the organization, the QFA serves the English-speaking farmers by providing information, educational and socio-cultural opportunities, and also by providing an opportunity for the development of leadership among people in the Quebec rural communities. During this meeting, the association's members, delegates, and friends heard presentations both on the activities of the past year and on the proposals for future directions. The obvious sequel is to analyse whether the policies and direction of the QFA have fulfilled the expectations of its members.

For the past several years the existence of QFA was jeopardized largely because the advantages of having a strong central focal point available to the English-speaking farmers were not fully recognized. After several crises and soul-searching moments while new objectives and programs were being suggested, the QFA has managed to regain its course.

The priority of its program is membership participation at the local level. The "Fieldman Project", funded by the Secretary of State, became effectively operational this past year and is largely responsible for instigating this local revival. This decentralization gave each region the responsibility of planning and executing programs which were relevant to the situation within their locality. The fieldman, chosen by regional committees, helps to coordinate the local projects and

also acts as the contact with the provincial office, whose function can now be likened to that of a clearing house.

A significant measure undertaken by the QFA was to realize the necessity of relating the professional needs of its membership to the majority of this province. For this specific purpose, a QFA-UPA (Union des Producteurs Agricoles) ad hoc committee was created. It has met regularly during the past years and initiated a dialogue on the problems and needs of the English-speaking farmers in Quebec. This "rapprochement" opened new avenues which facilitated the participation of the English-speaking farmer within the UPA. This process was not an easy one. Rapid changes and the overall evolution of the Francophone society created polarization and an unfortunate information gap with the English-speaking farmer. The lack of information available in English aggravated the situation. The problem was somewhat relieved by the request from the QFA to the UPA that they translate some of their documents into English. This request was granted. The introduction of the Quebec Agricultural Newsletter also set up a new direct information channel. These developments enabled the English-speaking farmer to participate in and respond to programs.

Considering that the QFA is a voluntary association with regard to membership and contributions which consequently limits the financial and personnel resources, its performance has been outstanding. A wide number of objectives were successfully achieved both on the community and provincial scale, which is manifest in the benefits enjoyed by the English-speaking farmer in Quebec.

What is the future of a provincial rural English-speaking association in Quebec? It is my strong conviction that it is associations and institutions which provide the foundations for safeguarding a cultural heritage. The consequences are clear and the results will depend on the actions or apathy of you as an individual. Your involvement and ideas are needed to provide strength to an organization's healthy evolution. A minority always has to work harder and more subtly. We must keep in mind that with rights also go responsibilities.

Martin van Lierop
Editor

Correction

In the Macdonald Reports section of the October issue we published an article "DHAS DIRECTOR'S ACHIEVEMENTS RECOGNIZED." On June 18, the Ordre des Agronomes du Québec presented Dr. John E. Moxley with their highest decoration, installing him as a Commandeur de l'Ordre de Mérite Agronomique, not the Order of Agricultural Merit as was printed. We apologize for this error.

Does Subsurface Drainage Pay?

by Professor Gerard J. F. Millette,
Department of Renewable
Resources

Does subsurface drainage pay? This is a question which numerous farmers have asked me for more than 30 years, which is the period of time that I have been mapping soils and making recommendations concerning their management. My answer has always remained the same: it is good

1. if it is necessary;
2. if it is economically feasible;
3. if the soils are managed and used properly after being drained;
4. if you are acquainted with special problems which may develop following underground drainage of the soils in your area.

How can the necessity of underground drainage be detected?

There is only one way: by examining all the soils of the farm to evaluate their moisture regime. For instance, in the Plain of Montreal, never have I found less than three kinds of soils on a 100-acre farm, while some contained as many as 25 types. This means that we cannot trust county soil maps, having a scale of one mile to the inch, to recommend that the soils of a farm should have underground drainage. A detailed soil map of a farm with a scale not greater than 330 feet to the inch is the only means of indicating the areas and the acreage of land which could be improved by means of underground drainage.

A detailed soil map of that scale indicates seven classes of moisture regime. The following report, which gives the management program, mentions the soils which must be drained, others which need it under some circumstances, and the last ones which are well drained naturally.

The moisture regime of a soil can be identified at any time of the year. A soil with good moisture regime has a uniform reddish brown or brown colour layer, immediately below the ploughed layer, which changes gradually to yellowish brown or greyish yellow with depth. If the soil layer underlying the ploughed layer contains specks of rust, it indicates an imperfect moisture regime. When the soil layer under the ploughed layer has a grey colour with a bluish or whitish tinge and a few specks of rust, the moisture regime is poor.

Underground drainage is compulsory for using soils with moisture regime ranging from poor to very poor and swampy. It is optional in the case of soils with imperfect moisture regime and detrimental for soils having moisture regime ranging from moderate to excessive. In the Plain of Montreal in particular, no more than six per cent of the agricultural soils have a moisture regime ranging from poor to swampy (excluding the organic soils which are a special case). Most of the soils being tile drained in the St. Lawrence Lowlands are part of the 2,900,000 acres (or 54 per cent of the area) of soils with imperfect drainage which benefit from it one year in four, five or six years; hence the

importance of considering the economic feasibility of such an important investment.

How can the economic feasibility of underground drainage be assessed?

The economic feasibility is function of the crops grown, the properties of the soil, and the management program after draining the soils.

The question of economic feasibility arises for soils with imperfect moisture regime exclusively, since it is compulsory for soils with poor moisture regime.

It is accepted by farmers that one acre of corn normally brings greater returns than one acre of hay and that one acre of market or garden crops brings more returns than one acre of corn. Prior to deciding to invest more than \$100 per acre in underground drainage, which will be useful one year out of four, five or six, one must calculate to see if increases in net revenues during the period of time concerned will justify the investment, if compared with an open ditch system and a well maintained system of surface drainage.

Once the decision has been made to install tile drainage, then comes the problem of spacing between the rows of drain. It is possible that 400 feet of drain per acre might be sufficient, therefore why pay for 800? The spacing between rows of tile drainage depends upon many factors:

- a) how soon and how often one gets onto the drained field after rain;



A soil map of a farm in Compton County, Quebec. Letter symbols above the line indicate soil name (capital letters) and surface texture (small capital letters). The numbers indicate drainage (5, good; 0, very poor). Below line, letters indicate topography, numbers indicate stoniness.

- the depth of the drainage outlets;
- the internal physical properties of the soils;
- the landscape;
- permeability tests.

For instance, if a farmer grows industrial canning crops, heavy machinery must be able to get onto a field within a few hours after rain has saturated the soil. In this case, a close spacing, based on the soil properties, is required. In the case of grain or silage corn, it is possible to wait a few days to use machinery on the land for harvesting, therefore wide spacing may be used between rows of underground drains.

For many years the depth of water outlets was insufficient in the Lowlands of the St. Lawrence to enable a wide spacing between rows of drains, because wide spacing requires that underground drains be set at greater depth than when they are set up close. For instance, a minimum depth of underground drains could be 30 inches for close spacing but

36 to 42 for wide spacing, thus requiring deep drainage outlets especially where the natural slope is almost non-existent.

The external and internal properties of soils are the most important ones to determine the spacing between rows of drains. An attempt has been made to summarize the effects of all of those properties under a single word "permeability", which means the time required by water to penetrate and move into the soil under the force of gravity. In fact, permeability is the resultant of a whole series of physical properties which combine their efforts to characterize a soil.

The texture of soil is very important, because the voids where water moves depend on the size of the soil grains. The voids are larger in gravel than in fine sand or in clay. However, the shape of the particles and their orientation, especially if the particles are platy, could decrease the permeability of a soil having the same texture as another one without the platy-shaped particles.

Some swelling clays make underground drainage difficult while others of volcanic or tropical origin are very porous. The clays of the St. Lawrence Lowlands are plate-shaped and set up on edge in a haphazard way which makes it possible to drain them, provided the plates have not been re-oriented through compaction or by wave action along the banks of rivers or lakes.

When texture is fine, generally the structure or soil granulation improves the permeability. Normally soil structures improve as a result of repeated wetting and drying; that is why the removal of water improves the structure for a few years following installation of the drains.

The occurrence of layers varying in texture (alternating layers of sand, silt, or clay) or of high density or cemented layers further complicates the significance of permeability. In the case of impervious or cemented layers, the use of a subsoiler or deep chisel sometimes is sufficient to improve drainage.

Some very porous alluvial sands which cover clay in the St. Lawrence Lowlands become excessively drained and start drifting due to wind actions during dry spells, if the underground drains are spaced too close or buried too deep.

d) The relief of a field influences the infiltration rate of water through the surface layer of the soil. When most of the water runs off at the surface, little infiltrates the soil, thus decreasing the importance of permeability. The infiltration itself is affected by texture, granulation, and the organic matter content of the surface layer. One must consider the possibility of narrowing the spacing between rows near the low section of a slope especially when drains are laid across the slope to increase their efficiency. The orientation of the slope should influence spacing between rows of drain. A north-facing slope has a shorter time to dry in the spring than a south-facing slope and may require a narrower spacing between rows of drain than the latter.

e) For a few years now, Quebec people have accepted a technique developed mainly in Holland to measure soil permeability. A hole with a uniform diameter is dug more than four feet into the soil when the level of the water table is high. Then the water which penetrated into the hole while digging is removed, and the velocity at which water flows back into the hole is recorded. Spacing between rows of drain may be calculated by means of the appropriate mathematical formula. These tests are rapid but can be used only when the soil is also saturated with water and cannot differentiate the factors which are responsible for causing the variations recorded which do not have a uniform degree of importance to justify

the spacing calculated by means of the formula. Moreover, the tests are not accompanied by a detailed soil map of the farm so that their value, from a representative standpoint, cannot be assessed.

The safest but the costliest and the most time-consuming system consists in experimenting with varied spacings of underground drains in specific soil types in important agriculture regions, while measuring the effects upon the soil drainage, the water table, the performance of crops, and the economic feasibility. It is then possible to proceed by means of analysis to recommend spacing between rows of drain in other soils of the area. This system covers the climatic variations inherent to each region of Quebec in addition to the soil variations.

The utilization and the management of the soils must be modified following the installation of drains

Draining land with underground drains is more than an engineering or hydraulic problem. It creates a complete new set of ecological conditions in the soil which must be considered if maximum benefits are expected from the investment. One must keep and maintain a system of rills and dead furrows to remove the water from the surface as fast as possible in the spring when the subsoil is frozen. This system enables the farmer to take advantage of the rapid warming up of the soil in the spring to seed earlier in drained than in undrained soils. The earlier the seeding of crops the higher the yields — with cereals especially. After draining, one should re-think one's schedule of tillage operations, and do the majority of the operations in the fall, including harrowing, to fa-

cilitate rapid soil warm up in the spring and to be ready to use the seeder directly in the spring. Excessive soil tillage in the spring in the Montreal area retards the warming up of the subsoil and reduces yields appreciably.

Special problems resulting from underground drainage

From a regional standpoint the water-table has been lowered in the soils of the Montreal region, in particular, as a result of deepening many streams, drainage outlets, and of regional sewage systems associated with urban development. Swamps, which used to serve as water reservoirs and regularized the water table in soils in the past, have been dried up.

The water of the region is evacuated more rapidly than in the past without maintaining water reserves. Therefore the soils become more sensitive than in the past to short periods of drought. Consequently, the ecology of the soil of the region will be affected and will accentuate the rhythm of changes already taking place in Quebec soils.

It is known that artificial drainage of soils increases soil temperature during the growing season, thus accelerating the decomposition of organic matter and the release of fulvic acids, in particular, which react with iron, aluminum, manganese, and even silica and carry them deep into the soil. These compounds have a tendency to accumulate in places where aeration and drying occur in the subsoil, which means at the level of and near the underground drains. This phenomenon develops quite rapidly in the artificially drained soils of Florida and was reported to me in 1976 by farmers in the counties of Wolfe and Arthabaska in Quebec. I have witnessed similar phenomena

(Continued on Page 16)

CROSS-CANADA STUDENT TRIP

by Professor T. G. Hartsock,
Department of Animal Science

As the student enrollment at Macdonald College continues to grow, more of our students are coming to us from urban and suburban areas and these students often have little or no farm background or experience. Many of these non-farm students are eager to find out what agriculture is all about, and it was this interest that motivated a group of first-year students to approach staff members about the possibility of a trip across Canada to learn about production agriculture. Since I was the academic advisor to the group of students who spawned the idea, in the fall of 1976, I was the first one asked to help plan it and to accompany the group on the trip. Without really knowing what I was getting into, I offered to help them with the project. My commitment seemed harmless enough since the trip wouldn't really occur until almost a year later and it might have only been a pipe dream anyway.

However the students, led by Michel Beauchamp and Elliot Lehman, were dead serious and planning meetings were held and a tentative itinerary was put together. A second staff member, Dr. Brian Kennedy, was "recruited" to accompany the group on the trip and other staff members (mainly Dr. Roger Buckland) with contacts in the areas we wished to visit fired off letters to see if we could get ourselves invited. The response was overwhelming, with gracious invitations received from everyone we contacted. A more refined itinerary was produced and estimates of the travel costs determined by one of the students

whose father owned the bus we would be using. The subsequent commitment of Dean Blackwood to pay half of the transportation costs was the key event that removed the word "proposed" from the Cross-Canada Trip.

Over 30 students committed themselves to going on the trip by paying a substantial deposit before the end of the school year. The trip was scheduled to run from August 13 through Labour Day, so the summer was spent furiously planning all the details of the itinerary. Since most of the students were on limited budgets, we decided to camp in tents for a good part of the trip and to cook as many of our own meals as possible. Therefore we set up "tenting" and "cooking" groups to simplify the organization of setting up camp and cooking meals.

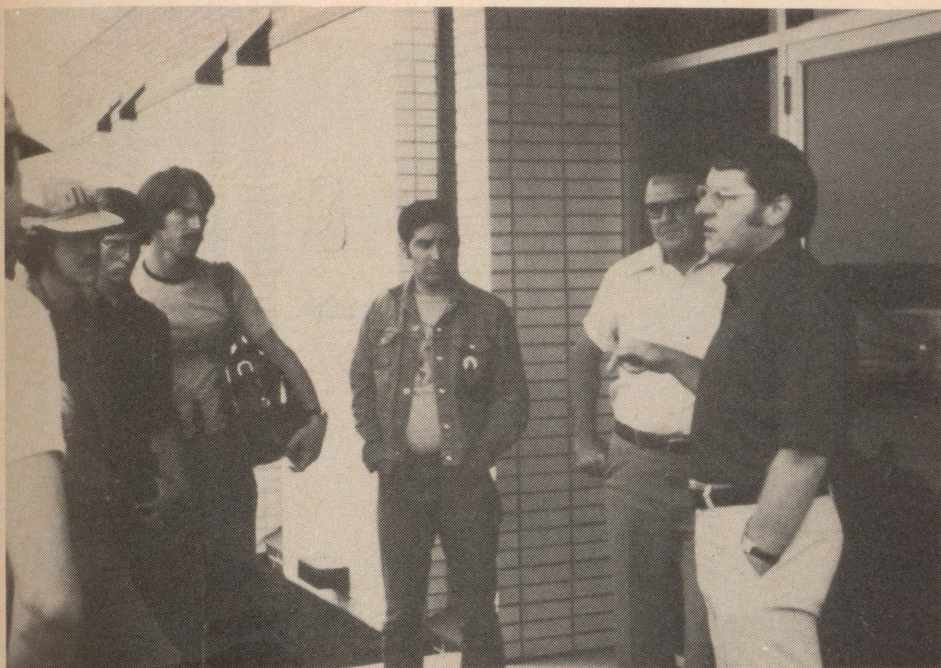
Just a word to those persons who think the younger generation is unthrifty and careless in the way they spend their money. These kids were so *thirrrrrifty* that I was sure their French accents (about 75 per cent of the participants were Francophone) were a cover for their Scottish ancestry. They purchased 30 rainbow trout (fresh from the pond) from a fish farmer in Ontario and would probably have bought a steer if I hadn't pointed out that there wasn't room for it on the bus! Because of our number, we were in a position to "bargain" for many of the things we purchased or did, and the students quickly learned how to get a "group rate".

Our trip started with a visit to the University of Guelph to attend the Agricultural Institute of Canada meetings. While at Guelph,

we joined a tour of five commercial farm operations (including the fish farm mentioned above) set up by the Canadian Society of Animal Science. We were also invited to attend the C.S.A.S. banquet and had the pleasure of seeing Macdonald's Dr. John Moxley receive the Certificate of Merit from the Society. Our stay in Guelph was topped off with visits to their modern Dairy and Beef units and to the surrounding countryside.

Although the tour was billed as the "Cross-Canada" trip, we did spend over a week in the United States. We spent most of our time in Wisconsin and Iowa with visits to the University of Wisconsin and Iowa State University. Highlights included visits to a commercial dairy herd with a 20,000 plus production average in Wisconsin and a student-owned-and-operated swine farm in Iowa. The time we spent in Des Moines, Iowa, was probably one of the more memorable parts of the trip. The Iowa State Fair, one of the largest agricultural fairs in the World, was running during our trip, and we spent an afternoon and evening touring all the exhibits (and the midway!). We also were invited to tour the Hyline Poultry and Pioneer Seed Corn operations by former Mac staff member, Dr. Robert Hawes. Bob and his group unfurled a Canadian flag into the Iowa breeze and gave us a personalized and informative tour and memorable luncheon.

The long drive from Iowa back up into Canada was a study in how climate effects the use of agricultural land. Travelling through the corn in Iowa (some of it hard-hit by drought and hail), the sunflowers in Minnesota, and the



Former Macdonald professor, Dr. Robert Hawes, showed the students around the Hyline Poultry and Pioneer Seed Corn operations in Iowa.



We were impressed by the amount of modern, recently purchased equipment, such as this tractor, on the more progressive farms that we visited.

wheat fields in Manitoba provided the students with some perspective of the magnitude of North American agriculture.

Our stay in friendly Manitoba was mainly at the Brandon Research Station, where the staff "rolled out the red carpet" for us. The interests of our group were mainly in the plant and animal sciences, but there were also sub-interests such as plant breeding, beef, etc.

The Brandon staff split us up into these interest groups and staffers in those areas took about a half day of their time to show the students around and answer their questions. That evening they hosted a burger barbecue in our honour, giving us our first taste of the western hospitality that we would experience for the rest of the trip. The Brandon staffers (plus Brian and I) managed to hold the students to only a two-touchdown win in the football game that capped off the day's activities.

From Brandon, we travelled to Saskatoon for visits to the University of Saskatchewan, a new food product pilot plant where we saw rapeseed oil extraction, and some discussions on rapeseed's place in Canadian agriculture. We were joined in Saskatoon by Bob and Treenie Sparling, Mac grads who had volunteered to spend a whole weekend showing us northwestern Saskatchewan. Bob had two full days planned for us and what a grand tour it was! Our visits included a sheep operation, a cow-calf operation covering seven or eight sections, a beef feedlot, rapeseed growing, cleaning and shipping, a historic tour, and a visit to a farm museum (including a ride on a steam driven tractor!).

In addition, Bob talked some businessmen into supplying the food and his associates into cooking a barbecued steak dinner with all the trimmings. You'll never really know how good a steak can taste until you've lived on packaged hamburger mixes for a week!

Bob and his family travelled with us on the bus for most of the next two days and all of us enjoyed "babysitting" their two children while we were being treated to a fantastic tour of that beautiful part of Canada's West. I was also fortunate to be able to visit the homestead where my wife's mother spent her childhood.

The Sparling's left us at Lloydminster and we drove on to Edmonton where we visited progressive dairy and poultry operations as well as a natural gas production facility and a fertilizer manufacturing plant. Esso made a real hit with the students when they permitted them to keep the hard hats they wore for the gas and fertilizer tour.

The business part of our trip completed, we headed for the Rockies for three days of rest and relaxation. We camped at both Jasper and Banff, with highlights including a skytram ride into a snowstorm, the creation of a new entrance to my tent by a black bear, saddle sores from a long trail ride and a night spent at sub-freezing temperatures (made a little less severe by the appropriate "anti-freeze"). Our long trip home was shortened considerably by the insistence of our driver to drive almost continuously for three days. The trip seemed short, however, as everyone busied themselves,



A weekend tour of northwestern Saskatchewan under the guidance of Bob Sparling (second from left, above) was one of the highlights of the trip. Both photos show the students visiting a large sheep operation.



reading, playing cards, and singing. When we entered Quebec, the bus erupted with shouts and songs of

the province. The trip had been a fantastic experience, but it was good to be home again.

SEEDING: A FUNDAMENTAL STEP

by Raymond Martin,
Department of Plant Science

To grow corn necessitates definite technical knowledge on the part of the farmer. This is not to say that corn growing is reserved only for specialized farmers. However, failures due either to lack of information or to laxity have been registered. Climatic factors, as experience tends to show, must not be overlooked. Even though careful management is undertaken catastrophic yields may result from bad weather as in 1977, to give only one of the sad examples.

To overcome these eventualities nothing must be underestimated, particularly in a marginal area for corn production. Everything should be oriented so that harvesting will be done with maximum efficiency and yield. Seeding, the basic step in growing any crop, must therefore be practiced with care. The objective of this paper is to outline and explain the fundamental rules and principles underlying corn seeding.

Seedbed Preparation

The purpose of seedbed preparation is to break up the soil particles fine enough to ensure good contact of the seed with soil moisture and to provide a smooth surface needed for optimum performance of a precision seeder. If the soil particles are too large, then the seeder will not work properly which leads to uneven seeding, and germination will be impaired due to inadequate contact of the seed with the soil. If on the other hand the soil is too fine, crusting may result, thus interfering with the emergence of the plant.

In Quebec most of the soils are wet and difficult to work in the spring. This may lead to compaction of the soil and promote formation of a hard pan which is a limiting factor in root development and penetration. The land must be worked when the soil is dry, but often it is dry on the surface while being excessively wet underneath. Therefore care must be observed in the timing of land preparation.

Selection of a Hybrid

The future use of crop (grain or silage) will definitely influence the choice of a hybrid; one good for silage is not necessarily advisable for grain corn and vice versa. To take into consideration the requirements of temperature for corn growth, hybrids are rated in heat units. Therefore it is essential to take into account the heat units of your area when selecting a hybrid. For grain corn the heat unit requirement of the hybrid **must** not exceed the heat units available in the area. For silage it is possible to select a hybrid that is slightly higher in heat unit demand than that available in the area. Moreover, the relation between the heat units of the hybrid and those of the growing area can be manipulated through different management procedures as we will see further on.

The Choice of Seeds

The proverb "a penny saved is a penny earned" is not applicable in the buying of seeds. Since yield is a function of seed quality, the so-called bargain must be disregarded. In addition, seed stock should preferably be renewed each year otherwise yields can be reduced by 20 — 25 per cent. This implies that seeds selected

from a crib — even from the most attractive cob — must not be used.

Seeds that have been bought the previous year could be used if they have been kept under cool and dry storage conditions. Before using them, however, a germination test should be made. There is an easy method to test seed germination which consists of seeding 100 seeds in continuously moist soil in a large tray kept near a source of heat, a radiator for example. If after 10 days more than 10 seeds do not germinate, it would be advisable to buy new seed stocks. The Plant Products Division of Agriculture Canada will make a germination test on 500 g of seed samples for a minimal fee.

Corn seeds are sold in calibrated shape (round, flat, etc.) uniform within a seed stock. It is important to buy the shape suited for the type of seeder and to make sure that there will be no mixture of shape which would bring uneven seeding.

Finally, seeds must be treated with fungicide; in most cases they are already treated. It is, therefore, better not to add any other form of chemical treatment unless specifically recommended by the seed dealer or agronomist. It could be phytotoxic and cause spoilage at germination.

Date of Seeding

Studies in P.E.I. have shown that corn seeded after May 15 exhibits a diminution in yield and an increase in percentage of moisture at harvest. To illustrate, Figure I and Figure II show the trends observed in yield and moisture content as the date of planting changed. In our conditions the

date will vary depending on the area, but the trends observed remain identical.

One important point to stress is that a late spring frost is not as detrimental as believed. At the beginning of the season corn can withstand adverse conditions, all but intensive flooding, for two to three weeks without its germination potential being affected. This is explained by the fact that when the plant is about four inches high the growing point is about one inch beneath the soil surface and will emerge from the soil when the plant is about twelve inches high. Unless the growing point is affected by frost, there will be regrowth of the plant though some leaves may have been affected. Moreover the fungicide will protect the plant during that period.

Through experiments run at Macdonald College, it is suggested that the optimal date for seeding is between the 1st and 15th of May, depending on the season and the area.

Rate of Seeding

The ideal rate of seeding is one which in wet years give the maximum yield but will not cause yield diminution in good years. This is very difficult to apply in practice, but it is possible for one to achieve that goal.

The rate of seeding depends on the hybrid sown, its heat unit requirements, the fertility of the soil and the heat unit rating of the area. An experiment in Ontario (the data are given in Figure III) shows the difference in yield of corn as affected by plant population and date of seeding. Studies at Macdonald College demonstrate that for our conditions between

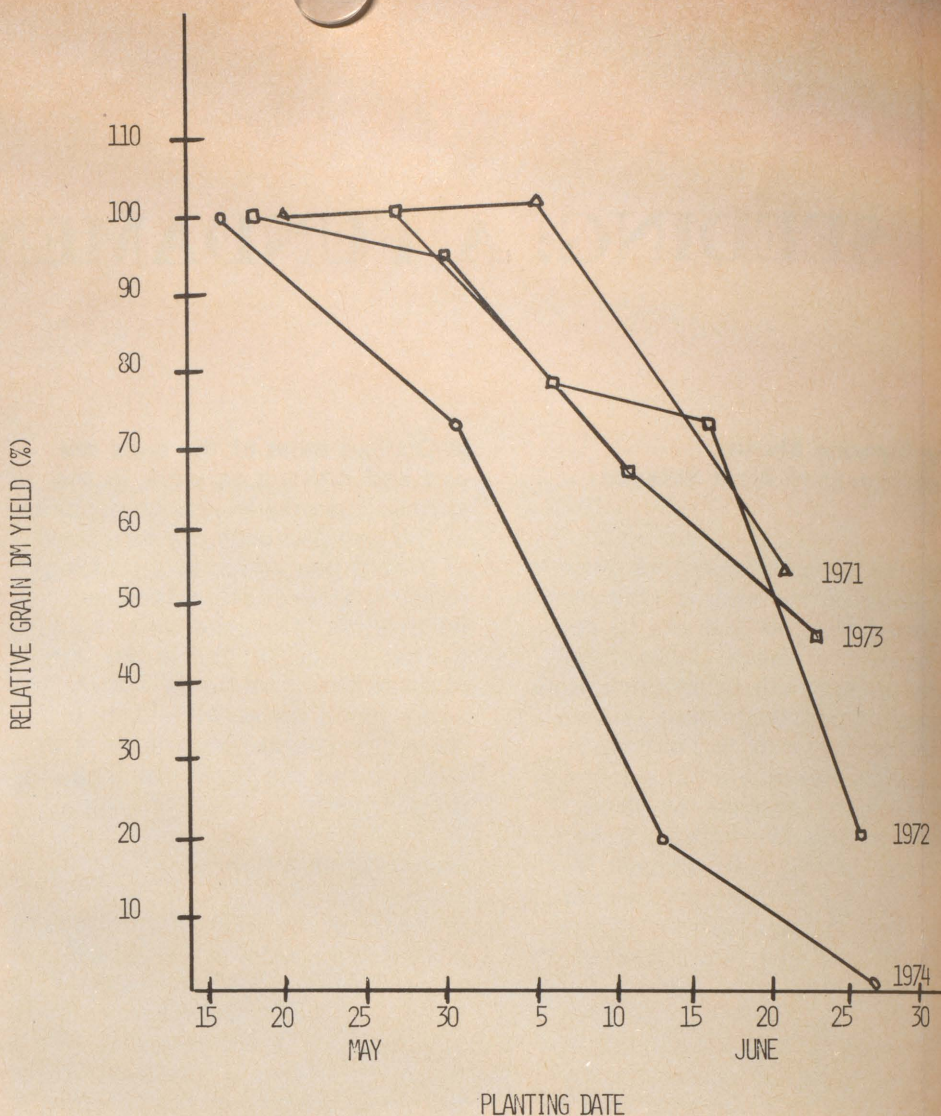


Fig. 1. Effect of corn planting on relative grain component of corn harvested for silage over four years in P.E.I. (1).

55,000 and 65,000 plants per hectare is the optimum rate to obtain maximum yield of silage. For grain corn the rate would be reduced by about 10 — 15 per cent, depending on the heat unit requirements of the hybrid and the amount of heat available. In both cases, however, when the optimum density is decided, it is advisable to seed 15 per cent more to account for the losses due to a) poor germination, b) cultivation damages, c) pesticide damages and d) damages by insects or other pests.

The three points to respect scrupulously when seeding...

1) The plant population:

It is often realized too late that the density obtained is not the same as theoretically seeded, even though all precautions were

taken to insure proper seeding. A verification in the field to check the adjustment of the seeder and the seeding rate must be done. A way of doing this is to count the number of seeds dropped on an area 10 m long and seeder wide. By dividing 10,000 m² by the product of number of seeds counted times the area, the plant population per hectare is obtained. This exercise is time consuming, but it would be unfortunate to compromise a crop yield to save a few hours.

2) Check the plant spacing within the row:

In order to get maximum yield it is essential to have equal distances between the seeds. If the distances are not equal, the plant will not benefit from the same amount of light and nutrients and the results are uneven-sized cobs. Variation in maturity will

also appear which will create harvesting and storage problems and losses.

3) Depth of seeding:

Along the same line, the depth of seeding must be uniform otherwise it will bring uneven germination which gives rise to the same type of problems. It is difficult to give a standard depth of seeding due to its relation to type of soil and moisture condi-

tions. Nevertheless 3 to 5 cm depth is generally advisable.

Finally to have uniformity of depth a constant speed at seeding is essential and the seeder must be in perfect working order.

The principles outlined above apply to all crops, should they be corn, cereals, or forages. The details may change with the crop, but the basic rules remain the same: "you get what you seed."

Whole Plant D.M. Yields of Corn - 1976

Ontario	Planting Date	Population (plants/HA)		
		49,500	62,000	74,000
WOODSTOCK	May 10	16.2	18.3	18.6
ELORA	May 12	14.5	15.9	17.8
ELORA	June 4	11.6	13.2	13.9

Data from T. Daynard — Univ. of Guelph.
Fig. III. Effect of plant population on whole-plant MD corn yields* (1)

(1) White, R. P. "Cultural practices affecting maturity and yield of corn for whole-plant silage." Symposium: Corn for Whole-Plant Silage in Canada. Canadian Society of Agronomy, A.I.C. Meeting, Guelph, Ontario, Aug. 15, 1977.

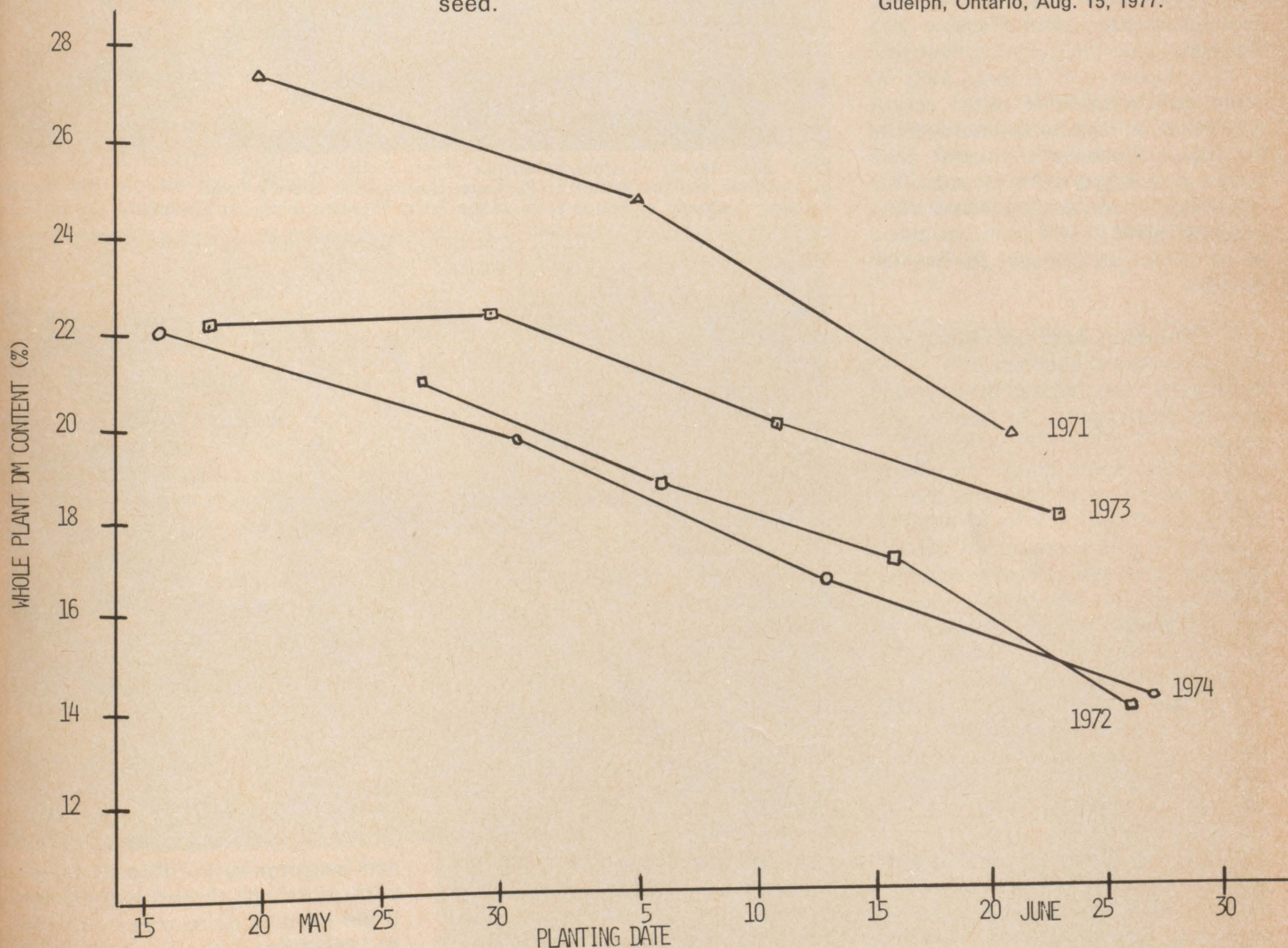


Fig. 11. Effect of planting date on the maturity of corn harvested for silage over four years in P.E.I. (1).

World Angus Forum

by Jim Houston,
Assistant Director,
Macdonald College Farm.

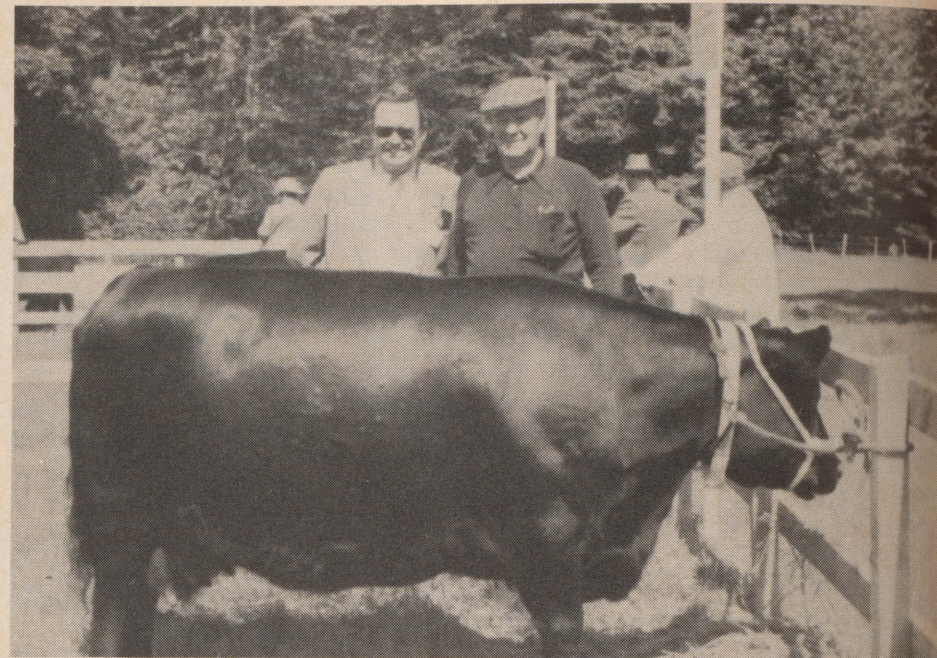
On June 10, my wife Polly and I, along with approximately 100 other Canadians from across the country, arrived at Prestwick airport in Scotland to begin a three-week stay, the highlight of which was the World Angus Forum in Aviemore. The five-day Forum attracted 843 delegates from the United States, Canada, New Zealand, Australia, Argentina, South Africa, the United Kingdom, Ireland, Mexico, Uruguay, Finland, Sweden, Norway, and West Germany.

With such world-wide representation, the speeches given, the topics discussed, and the subjects debated were varied. The following, however, are some of the highlights that I think would be of particular interest to Journal readers:

1. Finishing Beef on Grass:

Emphasis was placed on this because of the high cost of grain and the low returns for beef products. I think this will work very well in some countries where they have plenty of rain and the cattle are on grass 9 to 12 months a year. In some countries, where the summers are very dry and the winters are severe, corn silage, haylage, or dry hay are required as well as a little grain. I also believe that there will be a difference in the taste and flavour of the meat on an animal that is finished on grass as compared to one that has had some grain for four to six weeks to finish it.

2. Angus Cattle in any Environment: This is where we believe that we have the breed that will stand any kind of climate, due to the colour and the ability to grow hair in severe temperature.



Top: Jack Peaker, Secretary-Manager of the Canadian Angus Association, and the author at Sir Ewan MacPherson Grant's farm.

Below: A parade of Angus bulls at the Royal Highland Show in Edinburgh.



3. Research and Development within the Breed: The emphasis was on more size and less fat to meet the demands of the consumer. Mr. Tom Brewis, a Past President of the Angus Society in Britain, feels that this

can be done by purchasing bulls with more length and height, even if we have to go to other countries to find them.

4. The Future of Angus as We See It: The future looks very bright

Top: Tours of some of the top Angus herds in Scotland included a visit to J. McGregor's farm a Newcairn and (below) to Murdochcairn, his father's farm.

as we have a breed that will finish on grass, a breed that will cross with any other breed, a cow that has the greatest mothering ability of any breed, a breed that will stand any climatic conditions, and it is a polled breed.

While at Aviemore we took a boat trip up the Loch Ness and a bus ride to Culloden. We also visited well-known Angus herds in Speyside, Glenfarclas, Kinermony and Ballindalloch, as well as a well-known distillery at Glenfiddich

We left Aviemore on the 16th for Perth where we attended the Perth Sale. There were some great cattle offered for sale: 10 bulls were sold for an average of £1382.85 and 26 females averaged £1279.38. After the Sale we were bused to Edinburgh to our hotels where we stayed for a week and started an important part of our trip — visits to top Angus herds in Scotland.

The first day we visited Angus herds in Perthshire including the Classlochie herd owned by Mr. D. McLaren and the Netherton herd owned by Mr. W. McLaren. The Meat and Livestock Commission were present to demonstrate weight recording, beef improvement and performance testing, and it was a very interesting and informative afternoon.

The next day we visited well-known Border herds. The Haymont herd owned by Messrs. J. & W. Arnott, then on to Eastfield to see Tom Brewis's herd. The next stop was at Mrs. J.R.L. Campbell's Wedderlie Farm, which is a large farm with 43 Angus cows and 140 blue greys. This cross originally came from Ireland.

The following day was a Sunday so we were taken for a tour of the city of Edinburgh and a visit to Edinburgh Castle, a sight that I



will never forget. It was back to visiting herds on Monday, this time on the East Coast. The first stop was at Newcairn where we saw Mr. J. McGregor's herd that was started in 1971. The 100 cows are divided into groups of 20 with a bull to each group. He has purchased a bull from Canada; one from New Zealand one from Australia, one from Ireland, and one from Scotland. Mr. J. McGregor has a great herd of cows

to work with, and I believe that he will be one of the top Angus breeders in the future. The next stop was at his father's farm, Murdochcairn. This herd, started in 1943, was a fine example of Angus cattle. The next stop was at Peebles owned by R.B. Crockatt, Past President of the Angus Society. This herd was started in 1921 and Mr. Crockatt has 250 acres of land, with 120 acres in

(Continued on Page 15)



The Family Farm



Published in the interests of the farmers of the province by the Quebec Department of Agriculture.



AMALGAMATION OF DAIRY PLANTS

Subsidies to Continue This Year

The Quebec Department of Agriculture has announced that the program of subsidies for the amalgamation of milk pasteurization plants and ice cream factories will be continued this year. In force since 1967, this program aims to facilitate the consolidation of dairy plants and provide a guaranteed income to dairy producers.

In the case of milk pasteurization plants, the program makes it possible for the buyer to benefit by a subsidy of 20 cents per pound of fat content of the milk used by the plant which he intends to amalgamate. Moreover, this milk must have been bought at Class I, II, III, and IV prices in effect during the 12 consecutive months of operation prior to amalgamation.

With regard to the amalgamation of ice cream factories, the Quebec Department of Agriculture has fixed the subsidy at 20 cents per gallon of ice cream manufactured by the establishment during the 12 consecutive months of operation prior to amalgamation.

Such subsidies, however, must not exceed three-fourths of the purchase price of the establishment to be reassigned or of the shares in the business which owns or operates such an establishment.

Conditions for Eligibility

Any party or business wishing to acquire a milk pasteurization plant or an ice cream factory must meet certain requirements. Any

prospective buyer of a milk pasteurization plant must have operated a similar plant in the same region for at least five years. The operator of a milk pasteurization plant in a given region cannot acquire a similar plant in another region. In addition, if he obtains the minister's authorization, the future owner must reassign the amalgamated factory or his own factory within a three-year time limit. Once the permit has been issued, however, the new owner may use the plant to process another food or dairy product.

To qualify for the subsidies, the new owner of a plant or factory intended for amalgamation or reassignment must also supply the following documents: a copy of

the deed of final acquisition of the purchased establishment; a certificate issued by an authorized officer of the Department attesting to the complete reassignment of the establishment in question; and a copy of the decision of the Quebec Agricultural Marketing Board to cancel the permit of the plant or of the reassigned factory.

In conclusion, it should be noted that there exists a list of dairy plants and factories intended for amalgamation and reassignment and distributed according to eight geographic regions in Quebec. Further information on the subject may be obtained from the Technical Assistance to Food Processors Service, Quebec Department of Agriculture, 200-A Chemin Ste-Foy, Québec. Tel.: (418) 643-2557.

OPENING OF THE SWINE INSEMINATION CENTRE

On September 29 of this year, the Quebec Department of Agriculture opened its new swine insemination centre (Q.S.I.C.) at Saint-Lambert (North Beauce County), the heart of the Quebec region with the greatest concentration of hog production.

The opening of the swine insemination centre fulfils the desire of all hog producers concerned with improving the quality and profitability of their operation. This decision was also based on the success of cattle insemination in Quebec which, for the past 30 years, has contributed to the improvement of our dairy and beef breeds.

A Short History of Swine Insemination

A relatively recent technique, the insemination of swine dates back to only 1966 at which time the Quebec Department of Agriculture was undertaking varied research in this area. Research on boar crop and behaviour, the quantity and quality of semen, insemination procedure, and possibilities for semen distribution led to the opening of a first swine insemination centre at Sainte-Anne-de-la-Pocatière in 1973. Since then, there has been steady progress, and numerous difficulties have been resolved. Having set up the Saint-Lambert swine insemination centre, which is the first in all of Canada constructed specifically for the insemination of swine, the

Quebec Department of Agriculture is now able to move on to the second phase of the program.

The following table clearly outlines the progress made by the Centre since 1974:

	1974-75	1975-76	1976-77	Estimates for 1977-78
Number of Sows bred through Insemination.....	954	1550	3008	4000
Number of Breeders.....	65	185	305	400
Number of Boars.....	18	20	21	25

The Quebec Swine Insemination Centre (Q.S.I.C.)

In a few months, the Saint-Lambert Q.S.I.C., designed to house 40 purebred fully tested and registered breeding boars which have received the highest possible appraisal with regard to production and type, will be able to serve all of Quebec's hog producers. At present, researchers are actively working to find solutions to problems arising from the limited conservation period for semen (50 hours) and the difficulty in detecting estrus (heat) in sows.

Thanks to the Saint-Lambert Q.S.I.C., swine insemination is certain to become increasingly important in Quebec, and hog producers themselves will realize the advantages of the program in terms of increased profitability and superior quality of the final product offered to consumers.

Swine Insemination Program

Swine insemination is relatively simple and within the reach of the majority of producers. It is a do-it-yourself method whereby the producer himself performs the double insemination with semen received at the farm. However, before taking part in such a program, the producer must receive

the stipulated training which is provided on request by those in charge of the Q.S.I.C.

Advantages of Swine Insemination

A definite advantage of swine insemination is the genetic im-

provement of herds through the intensive use of superior boars. In fact, a boar used for insemination purposes can sire 10 to 15 times more sows than is possible through natural breeding.

Swine insemination is also a choice method of propagating the genetic potential of the best sires. This practice makes it possible to introduce new genes into a herd without having to purchase new breeding stock.

Another definite advantage of insemination is the reduction of risks of contamination, since the introduction of new breeders into the big barn is reduced to a minimum.

Moreover, because the producer performs the insemination himself and the material is disposable after use, sanitary conditions are always maintained. Finally, insemination allows for a much more efficient detection of estrus in sows in a herd, and the fact of using a breeder with a high genetic potential automatically results in a better final product.

Problems Related to Swine Insemination

Since the Quebec Swine Insemination Centre handles fresh semen,

whose maximum conservation period is about 50 hours, the program cannot yet operate on a province-wide scale. At present, because of this, only hog producers in the counties of Beauce, Mégantic, Bellechasse, Dorchester, Lotbinière, Lévis, Montmagny, L'Islet, and Kamouraska have access to it.

In the near future, however, research on the freezing of semen and the use of diluents which would help to keep it for three or four days should enable the Q.S.I.C. to meet the needs of all hog producers in the province.

Some Practical Pointers

For success in swine insemination it is imperative that producers keep the following in mind:

First of all, never inseminate gilts. It is a proven fact that open gilts have a more irregular estrus cycle than sows which have farrowed. This results in increased difficulty in determining the moment of intervention. Moreover, in a farrowing pen, there is always a percentage of sows whose estrus is very apparent and regular and which, as a rule, react positively to the back-pressure test. These are the sows which should be inseminated.

Finally, the producer must carry out testing for estrus in his sows at least twice daily with the help of a herd boar whose presence is essential for efficient detection of estrus and a success rate of insemination comparable to that of natural breeding.

The sole aim of the swine insemination program is to efficiently and economically help Quebec hog producers to increase the production of their herd.

Mode of Operation

1. To obtain semen, breeders should call the Q.S.I.C. at (418) 889-9748 between 8:30 a.m. and 10:00 a.m., indicating two choices of boars.

2. The semen ordered will be delivered on the same day and on its reception, the breeder must sign the bill from the Q.S.I.C.
3. All breeders interested in participating in the swine insemination program must first of all attend a training session.

For further information on swine insemination, call the Q.S.I.C. at (418) 889-9748.

(Continued from Page 5)

(concretions and cemented layers) caused by ditches as well as by underground drains in more than 10 counties in the Montreal Plain. The phenomenon of cementation in the subsoil related to improvement in drainage varies in intensity and rate of development according to a range of variations in soil properties such as: quantity and composition of organic matter, nature of the minerals, quantities of available elements like iron, etc., the pH of the soil, variations of texture and structure, and so on. Very little is known about this complex subject at present.

A soil which contains one or many layers of fine sand/or silt runs into the drains with the water. The fine sand and the silt may end up blocking the drain. A good quality filter wrapping the whole drain is the only means of keeping fine sand and silt out of the drains. However, a filter could increase the chances of developing a cemented layer around the drains.

Underground drains increase the chances of polluting streams and rivers, especially if large quantities of manure and nitrogen fertilizers are applied to the soil. It is possible that an in-

creased consumption of fertilizer may result from underground drainage.

To sum up, it is good to use underground drains if the soil needs them, and if it is economically feasible provided full advantage is taken from the improved ecological conditions of the soil. A soil suffering from excess moisture is a sick soil; underground drainage is an efficient medicine for the cure, but an excess dosage of the medicine may kill the patient.

(Continued from page 13)

barley, 30 acres in potatoes, and the balance in hay and pasture. The herd size is 40 Angus cows and 30 cross breeds.

After seeing all these herds I can see that the Scottish breeders are faced with the same problems that we have in Canada. A lot of their cows are low and thick set carrying too much fat. They are very conscious of this and have taken steps to correct it by buying bulls with more size and length with good rate gains. They have started a program similar to the one we have in Canada, a record of performance test for all young bulls and females.

The last two days were spent at the Royal Highland Show, where we saw a lot of top-notch cattle of all breeds. The Grand Champion Angus bull was Jonsop Eric of Eastfield, owned by Gammell, Cormack and McLaren. The Reserve Grand Champion bull was

Ballycaher Pride, owned by Mrs. M.S.O. Walker. The Grand Champion female was Moore Prinera owned by Wilfrid W. Watkins, with the Reserve Grand Champion ribbon going to Bashful Maid of NEWARK owned by Mrs. M.S.O. Walker. The Supreme Champion of the show was won by the Grand Champion Angus Bull Jonsop Eric of Eastfield. Mr. Tom Brewis, the Angus judge who is a past President of the Angus Society, is one of the most progressive and successful present-day breeders. He has judged all the major shows in the United Kingdom as well as Australia, New Zealand, and the Argentine.

The highlight of the Highland Show for my wife Polly was the opportunity to meet and speak with the Queen Mother, who noticed that she was from Montreal so spoke to Polly in French.

On June 23 we left Edinburgh; some were bused back to Prestwick for their return flight back to Canada; others continued the tour through England to London. A few of us stayed in Scotland to visit friends and relatives. Polly and I went to Kirkcudbright to visit an aunt and uncle and cousins that I had not seen for 53 years. We were very fortunate with the weather as we only had rain on three days during our visit.

Scotland is a very rugged country with lots of mountains, lakes and streams. The scenery is beautiful with sheep grazing the rough land, then the cattle, with crops grown on the low flat land. The major crops are grain, hay, potatoes, and turnips, or neeps as they call them. I was really impressed with the amount of reforestation being done by the government and the warm welcome we received from all the people.

QWI



Dear Fellow Institute Members:

When you receive my Christmas message, many of you will have your plans made for the festive season. The cakes baked, the plans made for family reunions, cards addressed, most of the shopping done.

But these are just the trivial things of Christmas.

It is my wish that your homes will be filled with joy and happiness and your hearts filled with love and peace.

If we have love and peace within our hearts, we can radiate these qualities to our homes and families, to our friends and the community, and we ourselves will be spreading that "peace on earth" which is so badly needed in the world today.

As we go forward into the New Year, may we more than ever live up to our Collect, and realize that it is the little things that create differences, that in the big things of life we are one. And O Lord God, let us not forget to be kind.

I hope that each one of you has a Merry Christmas and a prosperous New Year.

And as Tiny Tim observed "God bless us everyone".

Ina Kilgour,
Q.W.I. Provincial President



Members' Conference

A successful Members' Conference was held on October 20, 1977, in **Argenteuil** County. Members were present from nine of the ten branches of the host county and from Rawdon branch, **Montcalm** County. Roll call gave a count of 104.

After receiving name tags as they assembled in the Legion Hall in Brownsburg, the ladies enjoyed a cup of tea served with cookies, which was much appreciated by those who had travelled a distance.

Mrs. Walter Kilgour, Provincial President, opened the meeting with the Mary Stewart Collect. She introduced Mrs. Perley Clark, Argenteuil County President, who welcomed the group to her county and Mrs. Angus Asbil, Montcalm County President, who is also Provincial Agriculture Convener.

Group discussions under the direction of Mrs. Sterling Parker, 1st Vice-President of the QWI, proved to be interesting and worthwhile. As each group reported its findings it was apparent that serious thought had been given to the questions.

A substantial noon luncheon was provided by the Legion Ladies' Auxiliary. During the break a display of posters and pamphlets brought pertinent information to the attention of the members.

The proceedings throughout the day were interspersed with music under the leadership of Mrs. George Henderson.

The afternoon session opened with the Women's Institute Ode. The Executive spoke briefly on updated news and information.

Once more groups were formed to discuss the new Handbook. To assist in the discussion each group was handed a quiz, consisting of 15 questions, as prepared by Miss E. Smith, Past President of QWI and Mrs. Sterling Parker. Many by-laws were reviewed by looking up the answers to the questions.

After a brief question period the conference was brought to a close with the singing of the Hymn of All Nations and O. Canada.

The good communication and rapport among the many branch members and the executive of the QWI was evidence of the importance of these smaller conferences.

Mrs. S. Parker
1st Vice President
Quebec Women's Institutes.

Bringing a Close Alliance Closer

Being a long-time member of two associations in which I am very interested, namely the WI and the Brome County Horticultural Society, it occurred to me that we bear a close alliance to each

other in our work of maintaining and upholding those interests which start in the home, with the fond hope that they will eventually embrace our whole country.

Therefore, acting upon the old quotation "The wish is father to the thought", a letter was sent to be read at last fall's county convention suggesting that a trophy be given in one of the several Brome Fair categories sponsored by the Horticultural Society. The result was that it was voted that one be awarded in the cooking section for most points. The trophy would be competed for each year.

The then County President, Ruby Knights, and guess who, were appointed to look after same. At the time we were only sure of one thing — a rolling pin must be worked into the design. While studying trophy catalogues one attracted our attention. It was a plain wood plaque with a choice of designs to decorate the top. There was almost everything except a rolling pin! This is where a man came to our rescue, Ruby's husband, Fred Knights, told us he could fashion a plaque and also a rolling pin. And just like that our trophy came to be, a realistic moulding board with a miniature rolling pin at the top. Another local gentleman, Winston Dyer, who does fine engraving, added the suitable brass plaque and 21 name plates.

When the fair books were published, the trophy must have stimulated considerable interest, because the cooking was heavily contested. Moreover, when the results were added up there was only one point between the winner and the next highest, which called for much checking and re-checking by the secretary. Mrs. Denzil Bennett, from Brigham, was the winner and on the last day of the Fair, during a brief prize-giving ceremony, Mrs. Cecil Carr, County Vice-President, presented it to her.

Another proud moment for our County WI.

Irene Phelps,
Sutton Branch Member

Merry Christmas... With Love

"'Will you help me wrap up some love, Grandma?' asked the little girl. 'That's what I'm going to give Mom and Daddy for Christmas.'

"Corny? Sure. But not to a five-year-old whose monetary wealth consists of a quarter and a few pennies hidden in a doll purse.

"Still, when Grandma helped the little girl write a note of love on a simple card, the few tears of joy on Grandma's cheek made her realize that this was the most wonderful gift of all.

"Wouldn't it be something to gift wrap love for your family — gift wrap the gratitude you feel toward those who are so much a part of you?

"Giving the gift of love is the most expensive, the most precious present on earth, and money is unnecessary. Anyone with a heart can bestow it. Yet, few will give love, for it is so much easier to buy a present and Christmas wrap it with red or green ribbons. The gift of love, however, requires constant effort, for it must be ever renewed. You must give of yourself — your thoughts and your sympathy, your smiles and your understanding, your unselfish acts, and your strivings to do right.

"In addition to presenting the bright store gifts on Christmas morning, try a simple kiss on the cheek of each member of your family. And with that kiss, these words: 'I love you, and I'll always try to deserve your love.'

"Sure... it's corny. But it is the one true gift of Christmas as He gave it to the world.

"Can you give less to your family?"

Mrs. N. Sherrer, Missisquoi Co., found this among her clippings and wanted to share it with readers.

Dear WI Members:

These beautiful, hazy days of Indian summer are surely appreciated. I hope everyone had the chance to walk through the fields or in the woods on days such as these. Although the leaves haven't taken on as many bright hues as some years, there still is much to admire in the scenery around us. There is something pensive about fallen leaves but again there is a sense of promise, for in a few months these same trees will again be wearing bright and lively leaves. I was fortunate to be asked to go for a walk on a beautiful day with a young grandson, whose bright hair vied with the colours of the leaves that were tumbling down around us. We talked. Well, he talked and I listened, and soon the question came up "What do you like best about Christmas?" That started me thinking, for this is our letter for December. What did you like best about Christmas last year? Perhaps it wasn't the biggest and most expensive gift you received or the most elaborate party that you attended, but whatever it was, I am willing to bet there was a lot of love and caring on someone's part connected with it.

I have a recipe which has been well tested and is a suitable dessert for the holiday season:

Cranberry Crunch

1 cup rolled oats (uncooked)
1/2 cup flour
1 cup brown sugar
1/2 cup butter
2 cups cranberry sauce (or 1 can jellied or whole sauce)
1 teaspoon grated orange rind
1/2 cup shredded coconut

Mix oats, flour and brown sugar. Cut in butter until crumbly.

Place 1/2 of mixture in an 8 x 8 inch buttered pan. Cover with cranberry sauce. Sprinkle with orange rind and coconut. Top with balance of rolled oat mixture.

Bake 45 minutes in 350° oven.

Serve hot squares, topped with ice cream.

These are highlights from some of the branches. One of the members of **Ascot** branch, Mrs. D. McElrae, was honoured by receiving a certificate of Achievement, signed by Marc Lalonde, in recognition of her work with the Golden Age Club in Lennoxville.

At the **Brompton Road** meeting Mrs. E. M. Goodfellow always plans a few peppy tunes on the piano as the hostesses are doing the dishes. At **Lennoxville**, the citizenship convener spoke on FWIC projects and the making of a house log. Then from **Milby** we learn that the branch gave Mrs. C. Hyatt, a 90-year old member, a table arrangement of red roses and white carnations at her birthday party. This "at home" was held at the residence of Mrs. Hyatt's youngest daughter and son-in-law, Dr. and Mrs. R. Coté, Sherbrooke. Another daughter, also a member, Mrs. Lloyd Martin of Buckingham, Quebec, presented her mother with an Abbie Pritchard Throw.

From **Quyon**, Pontiac County, comes the news that there was a testimonial dinner given in honour of Mrs. Ina Kilgour, the first provincial president to be elected from that county. Also a very successful turkey supper is reported by this same group.

A member from **Grand Cascapedia** has started to do research work on the history of the oldest house in the area. Each member of the branch at **Matapedia** will contribute \$10 to the funds and the food sale will be held later. At the meeting at **Port Daniel**, Mrs. Oliver Watt, presented Mrs. Edwin Sweetman with a 50-year pin. Congratulations, Mrs. Sweetman! Three ladies, Mrs. Eva Sweetman, Mrs. J. G. Assels, and Mrs. W. J. MacPherson received 25-year pins. At **Marcil** a donation was given to a man who lost his barn in a fire, and card parties were arranged to augment the funds. We have news also from **Wright**. Recently, members, their husbands and friends spent a most pleasant day at the Gatineau All-

Season Resort which comprises 4,500 acres of Mont Ste-Marie. A buffet lunch was served in the dining area of Hotel Auberge L'Abri. They enjoyed a guided tour of the area.

The Agriculture Convener at **Granby Hill** read an article on "silo danger". Silos should be ventilated as thoroughly as possible with blowers and no person should enter for at least two weeks after it is filled; then he should wear a life rope and a colleague should be outside to see that all is well. **Granby West** planned to go out for dinner to celebrate their 24th anniversary, and **Waterloo-Warden** celebrated in like manner in recognition of their 50th. At the regular meeting, the ladies were treated to a birthday cake in honour of Miss Mountford who celebrated her 79th birthday.

At **Brookbury** plans were made for a family supper to honour all members over 80 years. Mrs. W. Batley will be a special guest. **Bury** had a supper meeting with 12 members from **Brompton WI** as guests including Sherbrooke County President, Mrs. D. Cullen, and Compton County President, Mrs. Helen Groom. **Canterbury** branch writes this: This group wishes to make it known that they strongly object to the excessive cost of books at college level when they are used for such a short time, and suddenly replaced by another expensive book. The 63rd semi-annual Fall Convention will be held in the hall at East Clifton and the ladies planned the luncheon menu.

Kinnear's Mills reports a new member. At **Dundee**, plans were made to host the semi-annual convention of Chateauguay-Huntingdon County, and the members of **Ormstown** branch held a mini-bazaar and bake sale which netted a substantial sum for their treasury. Plans were also made by this branch to entertain the teachers of the local elementary school.

The ladies from **Pioneer** will act as hostesses for 80 senior citizens

who will arrive by bus from Aylmer, Quebec. a hot luncheon will be served in the hall of St. Andrews East Presbyterian Church. The regular meeting of this same branch was held at Mrs. Maude Blair's at St. Andrew's East and County President Jean Clark brought greetings and gave a short talk on the approaching fall member's conference. Another long-time Institute member, Mrs. Foster Campbell, president from **Jerusalem-Bethany** was also present. At the meeting at **Arundel** a letter of thanks was read from CanSave following the receipt of a parcel of knitted articles. The Citizenship Convener, **Brownsburg** branch, also reports receiving similar articles. The meeting of **Dalesville-Louisa** was not a large one due to sickness, etc., but it proved to be a friendly time together. The publicity convener chose the motto "actions speak louder than words" because she felt that what a Women's Institute does in the community publicizes its group more than a lot of words. At the meeting of **Jerusalem-Bethany** Mrs. Hammond read an article which explained the method used by a group of ladies to raise money to help harvest a bountiful crop of apples which might otherwise be wasted.

Our ladies were fortunate to be able to listen to good speakers. At the meeting at **Wright**, Mrs. George Tomito of Kazabazua spoke on Japan and their customs. The size and the population of their country and ours was compared. Mrs. Tomito was Canadian born, had a few years schooling in Japan so had become familiar with Japanese culture. At **Dunham**, Mrs. Gracia Comeau, Citizenship Convener, had one of the junior members, Miss Susan Doherty, model a Lapland costume that she (Mrs. Comeau) had worn as a little girl. Mrs. Comeau read articles from the school bulletin of Lapland and also told about some of the customs there. She showed a very old brooch that had been her mother's and had come from that northern country. At **Stanbridge East**, Randy Yates of the Dixville Home showed slides of the home, of the boys and girls at work, and play. He told how the Home was started and how much the tombola,

held in the Spring, had meant to these children.

At **Sawyerville**, Mrs. Jessica Perkins showed slides of the children at Lennoxville, at the Dixville, and Cecil Butters Homes, and the work she does with these children. It is amazing what some of these retarded children are capable of doing. At **Ascot** Miss Esther Farnsworth showed slides of her trip to Scandinavia, hosted by Ron Smith, C.K.T.S. Dr. and Mrs. Dobie were invited to come to the meeting at **Hemmingford** and showed the film "Breath of Life" which exemplifies the life-saving method of mouth to mouth resuscitation. Dr. Dobie and his wife demonstrated on Annie, the fireman's Dummy Lady, as to how to perform these methods. Ladies from the group volunteered to practice these methods under Dr. Dobie's observation. The guest speaker at the **Upper Lachute East End** meeting was Mr. John Philip of "Treelands", Kintore, Scotland, who talked about the people and about the beautiful land of Scotland. **Arundel** had Dr. Massey of Huberdeau and after his talk led a question and answer period. At **Dalesville Louisa**, Mrs. Garry Simpson took the group on a tour of Canada by showing slides taken on trips from coast to coast. At **Lennoxville** Mrs. Doris Conley, a former school teacher from Sherbrooke, showed slides on her recent trip to California and along the Pacific Coast to Alaska, with animated and humorous comments on her experiences.

At **Lachute** the guest speaker was Mrs. Peter Walker of Montreal and Carillon. Mr. and Mrs. Walker visited England this past summer during the celebrations of Queen Elizabeth II's Silver Jubilee. One of the events they witnessed from the front row was the roasting of a suckling pig. When the pork was cooked to perfection, the meat was sliced and handed round by Princess Margaret. This was probably the outstanding happening of their visit.

At semi-annual in **Stanbridge East**, Missisquoi County, Mrs. Christine McLaughlin, Education Convener, introduced Mr. Norman de St. Croix, who is a School Commissioner in the District of Bedford, Sutton Area. He stated that there had been a fantastic change in the educational system since he entered school in 1942. He said that we today have tremendous facilities in our Regional Schools but it is very hard to make the children aware of this — that many children today take education for granted. Children need parental help and a great deal of stimulation and motivation to make them aware of the things they have to use. He, himself, believed that more discipline was needed. Nowadays we don't give children a chance to fail and very often they don't become a failure until they leave and are employed. Mr. de St. Croix said, "We are not going back to the little Red School House, but children are going to have to learn to concentrate in our Society."

Both **Dundee** and **Cowansville** supported the Association for the Mentally Retarded in their respective areas. **Hemmingford** is donating the proceeds from the Centennial Tea, to the new Macdonald Stewart Building. **Clarendon** voted \$100 to the Pontiac Community Hospital and **Milby** gave \$50 for the Cornelia Award which is to go to the winning student in Home Economics at Alexander Galt Regional High School and **East Angus** supported CanSave. **Granby-Hill** gave to the Salvation Army, and **Richmond Hill** to the local school for prizes; the same can be said for **Shipton**. Other branches in **Richmond County** helped a family who had suffered loss through fire. **Fordyce** sent donations to the Brownies, the School Committee for the School Fair Project, and to the 4-H Club.

Some roll calls submitted: **Pioneer**: Name a vitamin, what food it is found in, and why it is used. **New Richmond**: Say a sentence in

French. **Richmond Hill**: Read a WI clipping. **Brownsburg**: What educational training do you consider to be the most beneficial to women? **Bury**: Name a country associated with the ACWW. **Hemmingford**: Name a famous person in the medical world and tell why he or she is famous. **Denison Mills, Jerusalem-Bethany**, and **Dunham** members were to bring in jams and jellies for local senior residences. **Ascot**: Pay \$2 for phantom food sale.

This motto is from **East Angus**: The big trouble with communication today is the short supply of those who wish to communicate. **Inverness**: We are all in the same boat, let's pull together. G. K. Chesterton, English writer said: We are all in the same boat in a stormy sea, and we owe each other a terrible loyalty.

If each of us sent a Christmas message to someone who may be a bit lonely, that might be just what would cause them to realize that there is so much to be happy about at this season. A letter you write is part of you, so it is treasured. Sometimes Christmas is lost and then something happens. Somebody smiles, the telephone rings, a letter comes in the mail, and Christmas invades us. The earth is beautiful again, the stars brighter and the fireside is cosier. I wish you all a Merry Christmas.

Gladys C. Nugent
Publicity Convener.

Correction

In the **West Island** special, November Journal, it was stated that Plowing Match profits were used. This information was incorrect as, of course, any profits made were donated to Pennies for Friendship and a Gift Coupon. We apologize for the error.

MANAGING RURAL DEVELOPMENT - A WORKSHOP

January 30 & 31, 1978

HOW IMPORTANT IS THE RURAL ECONOMY?

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MANAGING RURAL DEVELOPMENT A WORKSHOP January 30 and 31, 1978

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